

REMARKS

Reconsideration of the Office action mailed on July 23, 2004 in connection with the above-identified patent application is requested in view of the foregoing amendments and the following remarks.

Double Patenting

The Examiner made several double patenting rejections, each of which is addressed below. References to cited co-pending claims in the following discussion refer to claims as amended.

1. Application Number 09/929,426.

The Examiner provisionally rejected claim 17 under the judicially created doctrine of obviousness-type double patenting in light of claims 1-25 of co-pending Application No. 09/929,426. That rejection is traversed. Applicant points out that co-pending claims 8-25 have been cancelled, so the rejection based on those claims is moot. Concerning co-pending claims 1-7, none of those claims disclose or suggest "a capacitive coupling between the contact detection system and the cutting tool," or "a brake mechanism configured to engage and stop the cutting tool if contact between the person and the cutting tool is detected by the contact detection system," as required by claim 17 in the present application. Therefore, claim 17 cannot be obvious in light of the co-pending claims and this provisional rejection should be withdrawn. MPEP 2143.03 ("To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." (citation omitted)).

2. Application Number 10/146,527.

The Examiner also provisionally rejected claim 17 under the judicially created doctrine of obviousness-type double patenting in light of claims 1-20 of co-pending Application No. 10/146,527. That rejection is traversed. Co-pending claims 4, 17, 18 and 20 have been cancelled, so the rejection based on those claims is moot.

The remaining co-pending claims differ from the cited claims of the co-pending application in that the co-pending claims address species of the invention claimed in the present application. Specifically, claim 17 from the present application addresses woodworking machines generally while the co-pending claims describe band saws. It may be that the cited claims in the present application encompass or cover the cited co-pending claims. However, that fact by itself is insufficient to support a double patenting rejection. The issues of claim dominance and double patenting must not be confused. MPEP 804 II at 800-20.

The cited co-pending claims define band saws having limitations different than the limitations set forth in claim 17. A number of those co-pending claims encompass embodiments disclosed in the co-pending application that were invented after the invention recited in claim 17. Additionally, the inventive entities in the two applications are different, and the co-pending application was filed after the present application. For all these reasons, claim 17 is not obvious in light of the cited co-pending claims.

If the claims in the co-pending application are allowed to issue first in order to maintain the double patenting rejection in this case, then a two-way obviousness analysis must be made, as explained in MPEP 804 B.1.(b) and In re Berg, 46 USPQ2d 1226 (Fed. Cir. 1998). A two-way analysis would be required because applicant could

not have filed all the claims in a single application and because there will have been administrative delay by allowing the co-pending application to issue first to maintain the double patenting rejection in this application. If a two-way analysis is made, then there is no obviousness because of differences between the claims. For all of these reasons, this double patenting rejection should be withdrawn.

3. Application Number 10/215,929.

The Examiner also provisionally rejected claim 17 under the judicially created doctrine of obviousness-type double patenting in light of claims 1-20 of co-pending Application No. 10/215,929. That rejection is traversed but is now moot because the co-pending application has gone abandoned. Applicant has filed a continuation application of the cited co-pending application, but the claims, filing date and inventive entity of the continuation application are different from claim 17 in the present application, so claim 17 is not obvious in light of the claims in the continuation application.

Claim Rejections – 35 USC §102(b)

Claims 1, 5, 6, 9 and 10 were rejected under 35 USC §102(b) as being anticipated by U.S. Patent No. 4,722,021 to Hornung et al. That rejection is traversed because Hornung fails to disclose a contact detection system, drive electrodes, or capacitive coupling as set forth in the claims as they existed prior to this amendment. Nevertheless, applicant has further amended the claims to focus the protection sought by this application. Applicant reserves the right to pursue claims similar to the claims as they existed prior to this amendment in a future continuation or divisional application.

Claims 1, 5, 6 and 9 have been amended to require a capacitive coupling that "comprises at least a portion of the shaft as one conductive plate, a second conductive

plate adjacent to and spaced apart from the shaft so that there is a gap between the shaft and the second conductive plate, and a dielectric in the gap between the shaft and second conductive plate." Clearly Hornung fails to show this configuration. As stated, Hornung shows a capacitor connected to a bearing that supports a spindle. There is no capacitive coupling in Hornung where at least a portion of the shaft is one of the conductive plates in the capacitive coupling. Therefore, this rejection should be withdrawn.

Claim 10 has been amended to recite a capacitive coupling comprising "two spaced-apart conductors with a dielectric between them, and where at least a portion of the outer surface of the arbor is one of the conductors." Hornung fails to show any capacitor where the outer surface of the arbor is one of the conductors. Therefore, this rejection should be withdrawn.

Claim 17 was rejected under 35 USC §102(b) as being anticipated by U.S. Patent No. 3,858,095 to Friemann et al. That rejection is traversed because Friemann fails to anticipate claim 17 for the reasons expressed in the prior amendment. Nevertheless, applicant has amended claim 17 to focus the protection sought by this application. Applicant reserves the right to pursue claims similar to claim 17 as it existed prior to this amendment in a future continuation or divisional application. Claim 17 now requires "a capacitive coupling between the contact detection system and the cutting tool, where the capacitive coupling comprises at least a portion of the cutting tool as one conductive plate, a second conductive plate adjacent to and spaced apart from the cutting tool so that there is a gap between the cutting tool and the second conductive plate, and a dielectric in the gap between the cutting tool and second conductive plate

... where the contact detection system is configured to impart an electrical signal onto the cutting tool through the capacitive coupling." Friemann does not show a capacitive coupling where at least a portion of the cutting tool is one of the conductive plates in the capacitor. Therefore, this rejection should be withdrawn.

Claim Rejections – 35 USC §103

Claims 2, 12, 13, 14 and 16 were rejected under 35 USC §102(b) as anticipated by, or in the alternative, under 35 USC §103 as obvious over Hornung. These rejections are traversed.

Claim 2 depends from claim 1 and therefore distinguishes Hornung for the same reasons as claim 1. Additionally, claim 2 recites "a frame configured to support the shaft, and where the shaft is electrically insulated from the frame" and Hornung fails to disclose any such configuration, as explained previously.

Claims 12, 13, 14 and 16 require "a contact detection system adapted to detect contact between a person and the cutting tool, wherein the contact detection system includes a first electrode capacitively coupled to the cutting tool to impart a signal to the cutting tool and a second electrode capacitively coupled to the cutting tool to monitor the signal imparted to the cutting tool." Hornung clearly fails to disclose a second electrode to monitor the signal, as set forth in the claims, and therefore, Hornung cannot support an obviousness rejection. MPEP 2143.03. Hornung also fails to disclose other limitations of the claims.

Claim 3 was rejected under 35 USC §103 as obvious over Hornung in view of U.S. Patent No. 5,587,618 to Hathaway, and that rejection is traversed. Claim 3 depends from claims 1 and 2 and distinguishes Hornung for the same reasons as those claims. Claim 3 also requires a shaft "mounted in one or more bearings supported by the frame, and where the shaft is electrically insulated from the bearings by one or more electrically insulating components disposed between the shaft and the bearings." The Examiner says Hornung discloses the invention of claim 3 except for insulating components between the bearing and spindle, but that Hathaway discloses those insulating components, and it would have been obvious to use the components of Hathaway in the device of Hornung. (Office Action, 10.) However, if one modified Hornung to include insulating components between spindle 8 and bearing 7, then the device of Hornung would not work because tool bit 6 would no longer be electrically connected to capacitor 9 so current measuring stage 10 could no longer measure current. In other words, Hornung requires a conductive connection between spindle 8 and bearing 7 to work, so it would not have been obvious it include insulating components between them. Therefore, claim 3 is not obvious in light of Hornung in view of Hathaway.

The Examiner rejected claim 4 under 35 USC §103 as obvious over Hornung in view of Hathaway and U.S. Patent No. 1,551,500 to Morrow, and that rejection is traversed. Claim 4 depends from claims 1 and 2 and distinguishes Hornung for the same reasons as those claims. Claim 4 also requires a shaft "mounted in one or more bearings supported by [a] frame, and where the shaft is electrically insulated from the frame by one or more electrically insulating components disposed between the bearings

and the frame." As explained above, Hornung fails to show or suggest a shaft supported by and electrically insulated from a frame. Additionally, it would not be obvious to combine Hornung with Hathaway because that would make the device of Hornung inoperative. Finally, Morrow fails to show any "insulating components" disposed between bearing and a frame; Morrow simply says that components such as flanges 2, shaft 3, bearings 4, frame 5 or table 6 "may be and preferably are of insulating material." (Morrow, page 1, lines 74-82.) Making a bearing or frame from an insulating material is different than having insulating components between the bearing and the frame, as recited by applicant's claim 4.

New Claims

Applicant is adding new claims 19-24. Claims 19 and 20 depend from claim 1 and further define the capacitive coupling. Claims 21-24 depend from claim 17 and recite various embodiments of the cutting tool recited in claim 17.

Conclusion

With the entry of the above amendments, and for the reasons discussed herein, Applicant submits that all of the issues raised in the Office Action mailed July 23, 2004 have been addressed and overcome. The application should now be allowed.

Respectfully submitted,

SD3, LLC



David A. Fanning, Esq.
Registration No. 33,233
Customer No. 27630
22409 S.W. Newland Road
Wilsonville, Oregon 97070
Telephone: (503) 638-6201
Facsimile: (503) 638-8601

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or facsimile transmitted to the U.S. Patent and Trademark Office to number (703) 872-9306, attention Examiner Boyer D. Ashley, on the date shown below.

Date: October 20, 2004
David A. Fanning